



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

PIEDMONT REGIONAL OFFICE

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Preston Bryant
Secretary of Natural Resources

David K. Paylor
Director

January 15, 2009

Mr. David N. Smith
Director of Environmental, Health and Safety Services
Old Dominion Electric Cooperative
Innsbrook Corporate Center
4201 Dominion Boulevard
Glen Allen, Virginia 23060

Location: Surry County
Registration No.: 52272

Dear Mr. Smith:

This will acknowledge the receipt of your PSD permit application for Old Dominion Electric Cooperative – Cypress Creek Power Station, dated December 17, 2008. The staff of the Piedmont Regional Office has completed its preliminary screening of your permit request. A 1,500 MW steam electric power plant is proposed, powered by two 750 MW pulverized coal-fired boilers, using Appalachian bituminous coal and up to 2% heat input biomass. Proposed facility emission sources also include an auxiliary boiler, emergency diesel fire pump, emergency diesel generator and emergency diesel intake pump, all fired by low sulfur No.2 fuel oil and two fuel oil storage tanks and material handling equipment. The application executive summary states that the Class I and Class II area analysis volumes will be submitted after the Best Available Control Technology (BACT) emissions levels are finalized. Based on the staff's determination, your facility is subject to the major permitting requirements in Article 6, 7 and 8 of 9 VAC 5 Chapter 80 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. A preliminary evaluation has been performed on the PSD application submittal, resulting in the following comments listed below:

- DEQ will comment on the Appendix C, Emissions Estimate and Appendix D, BACT Analysis within 30 days after receiving the Appendix E, Case-by-Case Maximum Achievable Control Technology (MACT) analysis (expected January 2009).
- Mercury is an additional pollutant to those listed on your PSD application page 3-5 as emitted in significant quantities under the PSD regulations. This requirement is found in 9 VAC 5-80-1615 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Mercury is significant as addressed by section b. of the definition of "significant" in this regulation, which refers to any emissions rate of a

pollutant not listed in section a; and which is subject to regulation under the Federal Clean Air Act (regulated by 40 CFR 60.45Da, Standard for mercury (Hg), subsection (a)(1)).

- Page ES-3 of the PSD application references the best available control technology (BACT) analysis included in Appendix D of the same. The BACT evaluation for mercury must be included as in other sections and a reference to the applicable NSPS Subpart Da standards for mercury.
- Particulate matter with aerodynamic diameter less than or equal to 2.5 microns (PM 2.5) must be evaluated in terms of a 10 ton per year threshold as a "significant" pollutant under the definition of the same in the PSD regulation
- Page 4-7 of the PSD application discusses emergency diesel engines under 40 CFR 60, Subpart IIII and is requesting a limitation of 100 hours for maintenance checks and test operations as defined by the Subpart IIII definition. We typically limit actual emergency operations up to 500 hours, which is more inline with the length of actual emergency requirements (Hurricane events). At your request in the application, we would structure the permit to allow this increase in permitted hours for an actual emergency, while maintaining the 100 hour Subpart IIII requirement.
- Page 4-11 of the PSD application does not include the requirement to address emissions units under 9 VAC 5-80-1100 G. and the requirements found in Article 6 Permits for New and Modified Stationary Sources. This may include emission units that are exempt from permitting, but require identification and registration.
- Page 4-12 of the PSD application indicates that the \$30,000 permit application fee has been submitted to DEQ. DEQ Finance deposited the check on December 23, 2008.
- Page 5-1 of the PSD application indicates the revised Class II Air Dispersion Modeling Protocol was submitted December 2009 (received on December 23, 2008). Comments were forwarded under separate cover from DEQ on January 12, 2009. Please note that until the modeling protocols are approved, as the Form 7 application emission rates and totals change, these documents should reflect the latest application.
- Appendix A of the PSD application is the DEQ Form 7, which should include copy of submitted Local Governing Body Certification form in the application. Also in the DEQ Form 7, pages 12-13, Air Pollution Control and Monitoring Equipment form; considering the magnitude of CO emissions for the PC Boilers, monitoring each PC Boiler using CO CEMs should be included in the application. This will provide timely data to monitor and control the largest single criteria pollutant emissions from the PC boilers (10,446 TPY plant wide). Page 13, Air Pollution Control Equipment - Supplemental Information form contains numerous "TBDs" that need to be determined and included in the application. Page 17, Other Regulated Pollutant Emissions form has "NA" instead of the uncontrolled emissions for sulfuric acid mist.

Your permit application contains sufficient information to continue the application review process. If upon further review it is found that additional information is required to support your permit application, such information will be requested at a later date.

In accordance with 9 VAC 5-80-1170 and 9 VAC 5-80-1775, Old Dominion Electric Cooperative (ODEC) is required to notify the public of the proposed construction of the source and conduct a briefing. The public notice must be approved by the DEQ prior to publication, and the notice must appear in at least one newspaper of general circulation in the affected area, no later than 30 days after your receipt of this letter (9 VAC 5-80-1170 specifies 15 days, but 9 VAC 5-80-1100 H.3. specifies that the provisions of Article 8 prevail if they conflict). At a minimum, the public notice must contain the following information:

- source name, location and type;
- pollutants and the total quantity emitted of each;
- brief statement of the air quality impact of such pollutants;
- control technology to be used at the time of the briefing;
- time and place of an informational briefing to inform the public about the application (9 VAC 5-80-1775); and
- name and telephone number of a contact person, employed by the applicant, who can answer questions about the source.

The public briefing will be conducted by ODEC and DEQ personnel need to be in attendance, so please coordinate scheduling with this office. If you have any additional questions, please call "Sparky" H.L. Lisle, Jr. at 804-527-5148.

Sincerely,



James E. Kyle, P.E.
Air Permit Manager

JEK/hll/52272ILODLetter01152009

cc: NPS, Shenandoah National Park
USFS, James River Face Wilderness Area
USFS, Swanquarter Wilderness Area
USFS, Dolly Sods Wilderness Area
USFS, Otter Creek Wilderness Area
US EPA, Regional Administrator, Region III